

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059810

Luminaire Tested: S123RDRP-H775D950-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059810  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-H775D950-X4F0-XX-UDD-SVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

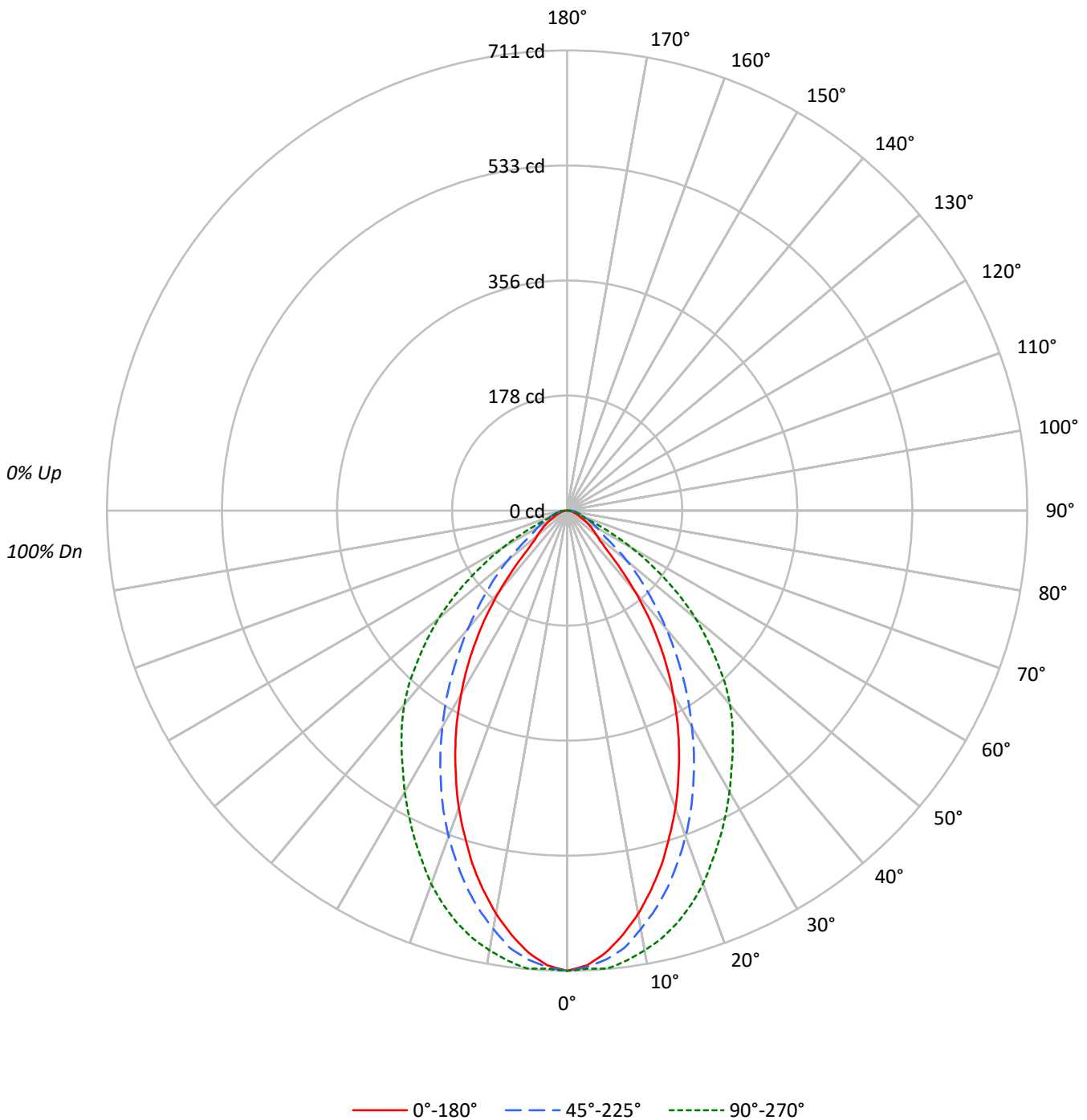
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 954.7 lumens  
Efficiency: N/A  
Efficacy: 40.6 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									20									
RC	80									70									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																			
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89																												
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79																												
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71																												
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64																												
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58																												
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52																												
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48																												
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44																												
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40																												
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37																												

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8351	8351	8351
5°	8081	8206	8373
10°	7543	7827	8227
15°	6873	7313	8012
20°	6116	6690	7673
25°	5299	5987	7235
30°	4445	5223	6804
35°	3521	4445	6396
40°	2492	3656	6000
45°	1466	2889	5399
50°	1098	2196	4730
55°	923	1482	3798
60°	747	1266	2698
65°	589	1081	1423
70°	515	941	879
75°	481	880	844
80°	480	953	839
85°	593	1428	1078

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5399 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.4	6.9
10°-20°	170.1	17.8
20°-30°	216.6	22.7
30°-40°	203.8	21.3
40°-50°	146.8	15.4
50°-60°	84.8	8.9
60°-70°	38.7	4.1
70°-80°	19.4	2.0
80°-90°	9.1	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	452.2	47.4
0°-40°	656.0	68.7
0°-60°	887.5	93.0
0°-90°	954.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	954.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	711	711	711	711	711	
5°	686	697	696	703	710	64
15°	565	586	602	635	659	158
25°	409	430	462	513	558	187
35°	246	267	310	382	446	152
45°	88	110	174	262	325	75
55°	45	47	72	138	186	40
65°	21	30	39	43	51	22
75°	11	20	19	19	19	11
85°	4	10	11	10	8	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	711.2	711.2	711.2	711.2	711.2
2.5°	703.2	712.1	705.9	706.8	708.5
5°	685.6	697.1	696.2	703.2	710.3
7.5°	660.8	674.1	681.2	691.8	701.5
10°	632.6	647.6	656.4	675.9	690.0
12.5°	599.9	619.3	630.8	656.4	676.7
15°	565.4	585.7	601.6	635.2	659.1
17.5°	526.6	548.6	569.0	608.7	637.9
20°	489.4	510.6	535.4	578.7	614.0
22.5°	448.8	471.8	500.0	546.0	585.7
25°	409.0	430.3	462.1	513.3	558.4
27.5°	369.3	390.5	424.1	480.6	530.1
30°	327.8	349.9	385.2	447.9	501.8
32.5°	287.1	308.3	348.1	416.1	472.7
35°	245.6	266.8	310.1	381.7	446.2
37.5°	205.0	227.1	273.0	353.4	419.7
40°	162.6	186.4	238.5	324.2	391.4
42.5°	122.8	148.4	204.1	294.2	360.5
45°	88.3	110.4	174.0	261.5	325.1
47.5°	68.9	80.4	146.7	227.9	292.4
50°	60.1	61.8	120.2	197.0	258.9
52.5°	52.1	53.9	94.5	167.9	223.5
55°	45.1	46.8	72.4	137.8	185.5
57.5°	38.0	40.6	60.1	109.6	149.3
60°	31.8	35.3	53.9	83.9	114.9
62.5°	25.6	31.8	45.9	61.8	82.2
65°	21.2	30.0	38.9	43.3	51.2
67.5°	17.7	27.4	32.7	30.9	30.0
70°	15.0	24.7	27.4	24.7	25.6
72.5°	12.4	23.0	23.0	21.2	21.2
75°	10.6	20.3	19.4	18.6	18.6
77.5°	8.8	17.7	16.8	15.9	15.0
80°	7.1	14.1	14.1	13.3	12.4
82.5°	6.2	11.5	11.5	11.5	9.7
85°	4.4	9.7	10.6	9.7	8.0
87.5°	3.5	8.8	8.8	8.0	5.3
90°	0.0	0.0	0.0	0.0	0.0



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	7.34	8.66	7.70	8.97	9.29	14.71	16.03	15.07	16.34	16.66
	3H	8.73	9.90	9.11	10.23	10.59	14.94	16.11	15.32	16.44	16.80
	4H	9.28	10.37	9.69	10.73	11.11	15.05	16.14	15.46	16.50	16.88
	6H	9.72	10.72	10.13	11.09	11.48	15.17	16.17	15.58	16.54	16.94
	8H	9.90	10.85	10.33	11.24	11.64	15.22	16.17	15.65	16.56	16.97
	12H	10.05	10.96	10.48	11.34	11.77	15.28	16.19	15.71	16.57	17.00
4H	2H	8.44	9.53	8.84	9.88	10.27	14.67	15.76	15.07	16.11	16.49
	3H	10.11	11.00	10.52	11.40	11.81	15.03	15.92	15.44	16.32	16.73
	4H	10.92	11.72	11.35	12.13	12.58	15.22	16.02	15.66	16.44	16.89
	6H	11.55	12.24	12.01	12.69	13.15	15.45	16.14	15.92	16.59	17.06
	8H	11.79	12.43	12.26	12.88	13.35	15.56	16.20	16.03	16.65	17.12
	12H	12.00	12.57	12.49	13.05	13.53	15.69	16.26	16.17	16.74	17.21
8H	4H	11.36	12.00	11.83	12.45	12.92	15.26	15.91	15.73	16.36	16.83
	6H	12.27	12.80	12.77	13.29	13.78	15.59	16.12	16.09	16.62	17.10
	8H	12.69	13.17	13.21	13.68	14.17	15.78	16.26	16.30	16.77	17.26
	12H	13.11	13.53	13.62	14.02	14.59	16.03	16.45	16.55	16.95	17.52
12H	4H	11.42	11.99	11.90	12.47	12.94	15.25	15.82	15.74	16.31	16.78
	6H	12.40	12.88	12.92	13.39	13.89	15.61	16.08	16.13	16.60	17.09
	8H	12.94	13.36	13.46	13.86	14.43	15.86	16.29	16.38	16.78	17.35